

# **ALTERNATIVE TILLAGE SYSTEMS**

## **Cost Differences**

## **Resources and Guidelines for Educational Meetings**

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# **BASIC ASSUMPTIONS**

**1. 1500 Acres of Cropland**

**2. Rotation**

**40% Corn**

**40% Beans**

**20% Wheat**

**3. All New Equipment**

**85% of List Price**

**4. Pure Systems**

**5. Constants**

**Chemicals  
Fertilizer**

**Combining  
Hauling**

# OPERATION ASSUMPTION DIFFERENCES

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	No Till	Min. Till	Conv. Till
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F. Cultivate	--	x (100%)	x (100%)
F. Cultivate	--	--	x (100%)
Plant (C)	x	x	x
Drill (B/W)	x	x	x
Spot Spray	x	--	--
R. Cultivate (C)	--	x (50%)	x (100%)
Chisel	x (W)	x (C/W)	x (B)
Plow	--	--	x (C/W)

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# EQUIPMENT ASSUMPTION DIFFERENCES

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	No Till	Min. Till	Conv. Till
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Tractor HP	60 120	120 225 4W	160 275 4W
Chisel	15'	20'	20'
Plow	---	---	9-18
Corn Planter	8-30	8-30	8-30
B/W Drill	14'	28'	28'
Field Cultivator	---	28'	28'
Row Cultivator	---	8-30	8-30

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# EXAMINATION OF FIXED COST DIFFERENCES

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	No Till	Min. Till	Conv. Till
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<b>Fixed Costs</b>			
<b>Tractors</b>	\$ 7,397	\$ 13,062	\$ 17,796
<b>Tillage</b>	410	2,727	4,740
<b>Planters</b>	5,787	5,892	5,892
 <b>Total</b>	 \$ 13,594	 \$ 21,681	 \$ 28,428
 <b>Per Acre</b>	 \$ 9.06	 \$ 14.45	 \$ 18.95

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# EXAMINATION OF VARIABLE COST DIFFERENCES

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	No Till	Min. Till	Conv. Till
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<b>Variable Costs</b>			
<b>Operating</b>	<b>\$ 3,087</b>	<b>\$ 5,376</b>	<b>\$ 10,032</b>
<b>Labor</b>	<b>2,502</b>	<b>2,475</b>	<b>3,642</b>
<b>Total</b>	<b>\$ 5,589</b>	<b>\$ 7,851</b>	<b>\$ 13,674</b>
<b>Per Acre</b>	<b>\$ 3.73</b>	<b>\$ 5.23</b>	<b>\$ 9.12</b>

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## DETAIL OF VARIABLE COST DIFFERENCES

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	<u>No Till</u>		<u>Min. Till</u>		<u>Conv. Till</u>	
	<u>Oper.</u>	<u>Labor</u>	<u>Oper.</u>	<u>Labor</u>	<u>Oper.</u>	<u>Labor</u>
F. Cultivator	\$ --	\$ --	\$1,500	\$ 480	\$ 1,500	\$ 480
F. Cultivator	--	--	--	--	1,500	480
Planter	1,578	960	1,020	744	1,020	744
Drill	1,044	1,251	1,206	630	1,206	630
Spot Sprayer	42	93	--	--	--	--
R. Cultivator	--	--	228	171	456	342
Chisel	423	198	1,422	450	948	300
Plow	--	--	--	--	3,402	666
 Total	 \$3,087	 \$2,502	 \$5,376	 \$2,475	 \$10,032	 \$3,642
 Per Acre	 \$ 2.06	 \$ 1.67	 \$ 3.58	 \$ 1.65	 \$ 6.69	 \$ 2.43

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## EXAMINATION OF TOTAL COST DIFFERENCES

	<b>No Till</b>	<b>Min. Till</b>	<b>Conv. Till</b>
<b>Fixed</b>	<b>\$13,594</b>	<b>\$21,681</b>	<b>\$28,428</b>
<b>Variable</b>	<b>5,589</b>	<b>7,851</b>	<b>13,674</b>
<b>Total</b>	<b>\$19,183</b>	<b>\$29,532</b>	<b>\$42,102</b>
<b>Per Acre</b>	<b>\$ 12.79</b>	<b>\$ 19.69</b>	<b>\$ 28.07</b>